



# SAFE ROUTES TO SCHOOL

## The Air We Breathe

### Lesson Plan

Grade Level:	K-2
Subject Areas:	Science, Practical Living/Vocational Studies (Health)
Core Content:	SC-EP-3.4.1, PL-(EP,04,05)-1.2.02
Overview:	Students will become familiar with air pollution and some of its possible causes. They also will be informed that breathing dirty air is harmful to the lungs and body.
Suggested Time:	1-2 class periods
Materials Needed:	Picture of human lungs, poster board, Vaseline, paper plates
Vocabulary:	lung, community, smog, pollution

#### Activities:

1. Tell your class that people can only live if the basic needs of sun, air, water and food are met. Show a picture of human lungs and explain that air enters the body through the lungs and that the oxygen in the air keeps our bodies alive. Explain that lungs show the effect of the air they bring in – clean air/healthy pink lungs, dirty air/dark unhealthy lungs. Tell the class that they will learn about how air pollution can harm their lungs and what can be done about it.
2. Conduct a group discussion using the following questions:
  - Air pollution is air that has become so dirty with chemicals and other substances that it can harm health. What is the most serious air pollution problem? ANSWER – Smog, particles in the air from burning fuels like gasoline or solid matter.
  - Air pollution is caused by activities that people do everyday. Can you think of some causes of air pollution? ANSWER – Driving cars, wasting electricity, smoking, factory emissions, burning trash, fires, flying planes, spraying chemicals, burning fields
  - Breathing dirty air can make you feel sick and hurt your lungs. Have you ever felt sick on a smoggy day? How did you feel? ANSWER – Irritated eyes, sore throat, cough, headache, chest tightness, shortness of breath, wheezing, feeling tired, nausea



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3. Give students a piece of poster board or drawing paper. Ask them to draw a picture showing what they can do to help make the air cleaner to breathe.
4. Coat the paper plates with Vaseline. Place them in various places around the school campus (near parking lots or drives, on the playground, in an open field, etc). Leave them for several days and then collect and observe the difference in particles on the plates depending on where they were placed.

### Extension:

- Give students paper and pencil and ask them to make a chart labeled one person and more than one person. Divide the class into groups and have them observe a road near the school. Have the groups count and record the number of cars with only one person in them and more than one person in them. Following the activity, discuss how carpooling or taking a bus would have reduced the total number of cars on the road and air pollution emissions.

